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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,316	04/20/2000	Jyunichi Kamakura	21.1977	4585

21171 7590 02/19/2004

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EXAMINER

NAHAR, QAMRUN

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/553,316

Applicant(s)

KAMAKURA ET AL.

Examiner

Qamrun Nahar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the RCE filed on 12/5/03.
2. The objections to claims 6 and 12 are withdrawn in view of applicant's amendments.
3. The rejections under 35 USC §112, second paragraph, to claims 1, 7 and 13 are withdrawn in view of applicant's amendments.
4. The rejection under 35 U.S.C. 103(a) as being unpatentable over Mattson, Jr. (U.S. 6,430,741) to claims 6, 12 and 18 is moot in view of the new ground(s) of rejection.
5. Claims 1, 6, 7, 12, 13 and 18 are amended.
6. Claims 1-18 are pending.
7. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Mattson, Jr. (U.S. 6,430,741).

Response to Amendment

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
9. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Mattson, Jr. (U.S. 6,430,741).

Per Claim 1 (Amended):

Mattson, Jr. teaches a system analysis apparatus for analyzing a system containing one or a plurality of programs comprising means for examining an access state and a number of accesses of a data item in said program (col.3, li.31-40 and col.5, li.9-25) and an analyzer for analyzing degree of association relationships (col.3, li.31-40) (discussing the color-coding of elements to distinguish between the number of data accesses) between processes and data items based on said access state and the number of accesses of the data item, each said process being at least one of a program, a set of programs and a program section (col.1, li.66 to col.2, li.15; col.2, li.25-28; col.3, li.31-40; *the color-coding of elements defines an access state*; for example, Black would indicate a high access level, Pink would indicate a low access level, and Red would indicate unaccessed items).

Per Claim 2:

Mattson, Jr. further teaches wherein said analyzer comprises means for quantifying the types and number of accesses, which are included in the data item access state, and generating quantified data item access state data (col.3, li.14-24).

Per Claim 3:

Mattson, Jr. further teaches wherein said analyzer comprises means for correcting said quantified data item access state data according to an external requirement including a system design requirement (col.1, li.66 to col.2, li.15; col.4, li.44-56; fig.1A, ref.102).

Per Claim 4:

Mattson, Jr. further teaches wherein said analyzer comprises means for collecting processes that access to a data item satisfying a predetermined condition in said quantified data item access state data (col.5, li.9-13; col.6, li.35-48).

Per Claim 5:

Mattson, Jr. further teaches wherein said analyzer comprises means for presenting at least one of a partitioning pattern of the data items ('visualization tool') and a division pattern of the processes, using the quantified data item access state data and the collected process information (col.10, li.25-41).

Per Claim 6 (Amended):

Mattson, Jr. further teaches wherein said division pattern of the processes comprises a presentation of process interfaces (“[for functions in the source code] maintain track of access to data elements” col.5, li.5-13; fig.1A, ref.105; The term “process interface” has been treated by the examiner to include the tracking of relationships between functions and data in compiling source code.), displaying distinction between public data and private data, said public data being external data used as interfaces to processes in an other division, and private data being internal data used only within processes in a division (column 6, lines 35-64 and column 10, lines 12-24; “a data coverage specification” specifies public data and private data, where the results are displayed to a developer upon completion of execution using the “visualization tool”).

Per Claims 7 (Amended), 8-11 & 12 (Amended):

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These claims represent the method associated with the apparatus of claims 1-6, respectively. They are rejected for the same reasons as cited above, with the method referenced at the following location (col.1, li.66 to col.2, li.4).

Per Claims 13 (Amended), 14-17 & 18 (Amended):

These claims represent the medium associated with the apparatus of claims 1-6, respectively. They are rejected for the same reasons as cited above, with the medium referenced at the following location (col.11, li.41-62; fig.7).

Response to Arguments

10. Applicant's arguments with respect to claims 1-5, 7-11 and 13-17 have been fully considered but they are not persuasive.

In the remarks, the applicant argues that:

a) **Rejections under 35 U.S.C. § 102 (e)**

In the detailed rejection of independent claim 1, on page 4 of the Office Action, the examiner cited column 5, lines 9-25 of Mattson as teaching a means for examining a data item access state in a program. That section of Mattson discusses using a counter to track the number of accesses to data elements (Mattson, col. 5, lines 9-11 and 17-21).

Independent claims 1, 7, and 13 of the subject application have been amended herein to recite "examining an access state and a number of accesses of a data item" and "analyzing degree of association relationships between processes and data items based on said access state and the number of accesses of the data item." As amended, independent claims 1, 7, and 13 recite both

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the number of accesses and the access state. Independent claims 1, 7, and 13 (as amended herein) are patentably distinguishable over Mattson, because the section cited by the examiner as anticipating the access state relates instead only to the number of accesses, which is now clearly and separately recited in each independent claim. In addition, dependent claims 2-5, 8-11, and 14-17 of the subject application (as amended herein) are allowable based in part on their dependency, directly or indirectly, from one of independent claims 1, 7, and 13.

Examiner's response:

a) Examiner strongly disagrees with applicant's assertion that Mattson, Jr. fails to disclose the claimed limitations recited in claims 1, 7 and 13. Mattson, Jr. clearly shows each and every limitation in claims 1, 7 and 13. As previously pointed out in Paper no. 7, Mattson, Jr. teaches examining an access state and a number of accesses of a data item in said program (col.3, li.31-40; col.5, li.9-25) and an analyzer for analyzing degree of association relationships (col.3, li.31-40) (discussing the color-coding of elements to distinguish between the number of data accesses) between processes and data items based on said access state and the number of accesses of the data item, each said process being at least one of a program, a set of programs and a program section (col.1, li.66 to col.2, li.15; col.2, li.25-28; col.3, li.31-40; *the color-coding of elements defines an access state*; for example, Black would indicate a high access level, Pink would indicate a low access level, and Red would indicate unaccessed items).

In addition, see the rejection above in paragraph 9 for rejection to claims 1-18.

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11. Applicant's arguments with respect to claims 6, 12 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (703) 305-7699. The examiner can normally be reached on Mondays through Thursdays from 9:00 AM to 6:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (703) 305-9662. The fax phone number for the organization where this application or processing is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

QN
February 13, 2004

Kakali Cha.

**KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
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